

Amendments To The Claims:

The following listing of claims replaces all prior listings of claims:

Listing of Claims:

1. (Currently Amended) An integrated message exchange system for collaborative business applications, comprising:

an integration repository comprising a plurality of design-time business scenarios, each of the plurality of one or more design-time business scenarios each describing and configuring message-based interaction between application components or enterprises based on ~~a set of~~ business process logic, routing rules, and executable mappings defined by the design-time business scenario,

a system landscape directory that provides a description of an active system landscape and identifies a configuration-specific business scenario that is consistent with the active system landscape, the active system landscape comprising one or more installed applications with which the integrated message system communicates;

an integration directory that captures the configuration-specific business scenario, the configuration-specific business scenario being identified by the system landscape directory from the plurality of design-time business scenarios in the integration repository; and

a processor that implements an integration server, the integration server comprising:

a message transport layer that transports a message from at least one sending application of the one or more installed applications to one or more receiving applications of the one or more installed applications,

a runtime engine comprising a business process engine that executes the business process logic defined in the configuration-specific business scenario on the message if the at least one sending application and/or the one or more receiving applications require the business process logic,

the runtime engine further comprising a logical routing service that evaluates the routing rules defined in the configuration-specific business scenario to determine one or more required interfaces for the one or more receiving applications and also to determine whether the business logic defined in the configuration-specific business scenario needs to be applied to the message, and a mapping service that applies the executable mappings defined in the configuration-specific business scenario to determine one or more required transformations to the message that depend on the message content, the at least one sending application, and/or the one or more receiving applications, and

a persistence layer that is accessible from both the message transport layer and the runtime engine, and that stores a reference to each message processed by the message transport layer.

2. (Original) The system in accordance with claim 1, further comprising a database, accessible via the persistence layer, for storing a copy of each of the messages corresponding to the message references stored in the persistence layer.

3. (Original) The system in accordance with claim 1, wherein the message transport layer includes a physical address resolution service, and a transport service.

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Currently Amended) The system in accordance with claim 1 ~~6~~, wherein the plurality of design-time one or more business scenarios ~~processes~~ are accessed by the business process engine based on content of each selected message.

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Currently Amended) In a collaborative business application landscape, a method for integrated message exchange, comprising:

capturing configuration-specific collaboration descriptions of one or more applications installed in an exchange infrastructure, the capturing comprising accessing a description of an active system landscape and a configuration-specific business scenario that is consistent with the active system landscape from a system landscape directory, the capturing further comprising referencing an integration repository that comprises a plurality of design-time business scenarios, each of the one or more design-time business scenarios ~~each~~ describing and configuring message-based interaction between two or more application components or enterprises based on ~~a set of~~ business process logic, routing rules, and executable mappings defined by the design-time business scenario, the configuration-specific business scenario being selected from the design-time business scenarios;

receiving a message from a sending application of the two or more applications;

storing a copy of the message in a database;

storing a reference to the message in a persistence layer;

executing the business process logic defined in the configuration-specific business scenario on the message if the at least one sending application and/or the one or more receiving applications require the business process logic defined in the configuration-specific business scenario;

evaluating routing rules defined in the configuration-specific business scenario to determine one or more required interfaces for the one or more receiving applications and also to determine whether the business logic defined in the configuration-specific business scenario needs to be applied to the message;

applying the executable mappings defined in the configuration-specific business scenario to determine one or more required transformations to the message that depend on the message content, the at least one sending application, and/or the one or more receiving applications; and

based on the message reference stored in the persistence layer, transporting the message to at least one receiving application of the two or more applications.

13. (Original) The method in accordance with claim 12, wherein transporting the message includes resolving a physical address of the at least one receiving application.

14. (Original) The method in accordance with claim 12, further comprising accumulating, in the persistence layer, two or more message references of related messages.

15. (Original) The method in accordance with claim 14, wherein transporting the message includes:

accessing and grouping the messages associated with the accumulated message references;
and

transporting the grouped messages to the at least one receiving application.

16. (Canceled)

17. (Canceled)

18. (Currently Amended) The method in accordance with claim 12, ~~further comprising, upon executing the at least one business process, wherein transporting the message to at least one receiving application of the two or more applications comprises~~ sending the message reference to a message transport layer for transporting the message to the at least one receiving application.

19. (Currently Amended) The system in accordance with claim 1, wherein the integration server comprises:

~~a runtime engine that provides messaging and business process control at runtime for connecting the one or more installed applications; and~~

one or more integration services that are specific to one or more of the one or more installed applications.

20. (Previously Presented) The system in accordance with claim 1, wherein the integration server is a dedicated server that applies the collaboration knowledge from the integration directory in a runtime collaboration environment.

21. (Currently Amended) An article comprising a machine-readable medium embodying instructions that when performed by one or more machines result in operations comprising:

capturing configuration-specific collaboration descriptions of one or more applications installed in an exchange infrastructure, the capturing comprising accessing a description of an active system landscape and a configuration-specific business scenario that is consistent with the active system landscape from a system landscape directory, the capturing further comprising referencing an integration repository that comprises a plurality of design-time business scenarios, each of the one or more design-time business scenarios ~~each~~ describing and configuring message-based interaction between two or more application components or enterprises based on ~~a set of~~ business process

logic, routing rules, and executable mappings defined by the design-time business scenario, the configuration-specific business scenario being selected from the design-time business scenarios;

receiving a message from a sending application of the two or more applications;

storing a copy of the message in a database;

storing a reference to the message in a persistence layer;

executing the business process logic defined in the configuration-specific business scenario on the message if the at least one sending application and/or the one or more receiving applications require the business process logic defined in the configuration-specific business scenario;

evaluating routing rules defined in the configuration-specific business scenario to determine one or more required interfaces for the one or more receiving applications and also to determine whether the business logic defined in the configuration-specific business scenario needs to be applied to the message;

applying the executable mappings defined in the configuration-specific business scenario to determine one or more required transformations to the message that depend on the message content, the at least one sending application, and/or the one or more receiving applications; and

based on the message reference stored in the persistence layer, transporting the message to at least one receiving application of the two or more applications.

22. (Previously Presented) A system as in claim 1, wherein the routing rules determine the receiving application on a business level.